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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,756	05/15/2006	Hirokazu Tanaka	JCLA18017	1322

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Suite 250
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Irvine, CA 92618

EXAMINER

HARRINGTON, ALICIA M

ART UNIT	PAPER NUMBER
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2873

MAIL DATE	DELIVERY MODE
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09/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,756

Applicant(s)

TANAKA ET AL.

Examiner

Alicia M. Harrington

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "a maximum diameter" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 will be examined as best understood by the Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (US 6,470,120) in view of Oyama (US JP 2002-196180).

Regarding claims 1 and 5, Green discloses an optical collimator, comprising: a cylindrical eccentric sleeve (112-114 and 120-122; 620,520); a lens; and a capillary tube

fixed into the eccentric sleeve, holding an optical fiber (100) at a center, and having an angled end face directed toward the lens (see the embodiment figure 6). However, Green fails to specifically disclose a partially spherical lens having a columnar portion fixed into the eccentric sleeve and translucent spherical surfaces with approximately the same center of curvature at both ends of the columnar portion and wherein the eccentric sleeve is made of glass or crystallized glass.

In the same field of endeavor, Oyama discloses an optical collimator wherein the lens is a spherical lens or cylindrical shape rod lens (section 4 and 8). Oyama teaches cylindrical shaped lens are easily fit into the bore/sleeves. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Green, for the purpose of including partially spherical lens having a columnar portion fixed into the eccentric sleeve and translucent spherical surfaces with approximately the same center of curvature at both ends of the columnar portion, because a cylindrical shape is a better fit. Additionally, a lens with a cylindrical shape (columnar portions) and spherical refractive surfaces (surfaces with approximately the same center of curvature at both ends of the columnar portion) would still define the lens as a spherical lens; thus, it would provide the equivalent function of ball lens, and inclusion of spherical lens in an optical collimator is known in the art, as taught by Oyama.

Green and Oyama fail to specifically disclose wherein the eccentric sleeve or capillary tube is made of glass or crystallized glass. They disclose the claimed invention with the except for a glass sleeve. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include this feature, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claims 2 and 8, Green and Oyama fail to specifically disclose the radius of the beam leaving the partially spherically lens. This is would depend on the size, curvature and material of the lens. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include these features, since it

would keep the beam small and help prevent loss. In addition, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272,205 USPQ215 (CCPA 1980).

Regarding claims 3 and 9, Green and Oyama fail to specifically disclose optical signal response of -30 db or more. The signal response would depend on the distance between lenses, optical material and signal input. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a signal response in this range, since it has been held that discovering an optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233. In addition, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Mashm, 2 USPQ2d 1647 (1987).

Regarding claim 4, Green and Oyama fail to specially disclose eccentric sleeve is produce by a drawing process. However, in product by process claim, the patentability is dependent upon the product not the process. See MPEP 2113.


Regarding claims 6-7,10, the coefficient of thermal expansion is dependent upon materials used for each element. It would have been obvious to one of ordinary skill in the art at the time the invention was made to prescribe a particular expansion coefficient, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin,125 USPQ 416.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Harrington whose telephone number is 571 272 2330. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571 272 2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Alicia M Harrington
Primary Examiner
Art Unit 2873

AMH